

<110> CuraGen Corporation et al.
 Alsobrook II, John
 Eichen, Joseph
 Lepley, Denise M.
 Miller, Charles E.
 Mezes, Peter
 Hahne, William

<120> COMPOSITIONS AND METHODS OF USE FOR A FIBROBLAST GROWTH FACTOR

<130> Cura-57 SNP

<140> ***Enter Current Patent Application ID***

<141> 2004-11-3

<150> 10/702,126

<151> 2003-11-4

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<170> CuraSeqList version 0.1

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Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn		85	90		95	
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Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp Thr Gly Arg Arg Tyr		100	105		110	
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Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Asp Gly Ala Arg Ser		115	120		125	
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Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro
180 185 190

Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asn Leu Leu Met Tyr
195 200 205

Thr

<210> 14

<211> 612

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1) .. (609)

<400> 14

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Gly Phe Leu Gly Gly Leu Glu Gly Leu Gly Gln Gln Val Gly Ser His
1 5 10 15

ttc	ctg	ctg	cgc	cgc	gct	ggc	gaa	cgt	ccg	cca	ctg	ctg	ggc	gaa	cgt	96
Phe	Leu	Leu	Pro	Pro	Ala	Gly	Glu	Arg	Pro	Pro	Leu	Leu	Gly	Glu	Arg	
			20					25					30			

cgc tcc gca gct gaa cgc tcc gct cgt ggt ggc ccg ggt gct gct cag 144
Arg Ser Ala Ala Glu Arg Ser Ala Arg Gly Gly Pro Gly Ala Ala Gln

35 40 45

ctg gct cac ctg cat ggt atc ctg cgt cgc cgt cag ctg tac tgc cgt 192
Leu Ala His Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg
50 55 60

act	ggt	ttc	cac	ctg	cag	atc	ctg	ccg	gat	ggt	tct	ggt	cag	ggt	acc	240
Thr	Gly	Phe	His	Leu	Gln	Ile	Leu	Pro	Asp	Gly	Ser	Val	Gln	Gly	Thr	
65					70					75					80	

cgt cag gac cac tct ctg ttc ggt atc ctg gaa ttc atc tct gtt gct 288
Arg Gln Asp His Ser Leu Phe Gly Ile Leu Glu Phe Ile Ser Val Ala
85 90 95

gtt ggt ctg gtt tct atc cgt ggt gtt gac tct ggc ctg tac ctg ggt 336
 Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly
 100 105 110
 atg aac gac aaa ggc gaa ctg tac ggt tct gaa aaa ctg acc tct gaa 384
 Met Asn Asp Lys Gly Glu Leu Tyr Gly Ser Glu Lys Leu Thr Ser Glu
 115 120 125
 tgc atc ttc cgt gaa cag ttt gaa gag aac tgg tac aac acc tac tct 432
 Cys Ile Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser
 130 135 140
 tcc aac atc tac aaa cat ggt gac acc ggc cgt cgc tac ttc gtt gct 480
 Ser Asn Ile Tyr Lys His Gly Asp Thr Gly Arg Arg Tyr Phe Val Ala
 145 150 155 160
 ctg aac aaa gac ggt acc ccg cgt gat ggt gct cgt tct aaa cgt cac 528
 Leu Asn Lys Asp Gly Thr Pro Arg Asp Gly Ala Arg Ser Lys Arg His
 165 170 175
 cag aaa ttc acc cac ttc ctg ccg cgc cca gtt gac ccg gag cgt gtt 576
 Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp Pro Glu Arg Val
 180 185 190
 cca gaa ctg tat aaa aac ctg ctg atg tac acc taa 612
 Pro Glu Leu Tyr Lys Asn Leu Leu Met Tyr Thr
 195 200

<210> 15

<211> 203

<212> PRT

<213> Homo sapiens

<400> 15

Gly Phe Leu Gly Gly Leu Glu Gly Leu Gly Gln Gln Val Gly Ser His
 1 5 10 15
 Phe Leu Leu Pro Pro Ala Gly Glu Arg Pro Pro Leu Leu Gly Glu Arg
 20 25 30
 Arg Ser Ala Ala Glu Arg Ser Ala Arg Gly Gly Pro Gly Ala Ala Gln
 35 40 45
 Leu Ala His Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg
 50 55 60
 Thr Gly Phe His Leu Gln Ile Leu Pro Asp Gly Ser Val Gln Gly Thr
 65 70 75 80
 Arg Gln Asp His Ser Leu Phe Gly Ile Leu Glu Phe Ile Ser Val Ala
 85 90 95
 Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly
 100 105 110
 Met Asn Asp Lys Gly Glu Leu Tyr Gly Ser Glu Lys Leu Thr Ser Glu
 115 120 125
 Cys Ile Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser

130	135	140	
Ser Asn Ile Tyr Lys His Gly Asp Thr Gly Arg Arg Tyr Phe Val Ala			
145	150	155	160
Leu Asn Lys Asp Gly Thr Pro Arg Asp Gly Ala Arg Ser Lys Arg His			
	165	170	175
Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp Pro Glu Arg Val			
	180	185	190
Pro Glu Leu Tyr Lys Asn Leu Leu Met Tyr Thr			
	195	200	
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<400> 16			
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1	5	10	15
ccg ccg gct ggt gaa cgt ccg cca ctg ctg ggt gaa cgt cgc tcc gca			96
Pro Pro Ala Gly Glu Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala			
	20	25	30
gct gaa cgc tcc gct cgt ggt ggc ccg ggt gct gct cag ctg gct cac			144
Ala Glu Arg Ser Ala Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His			
	35	40	45
ctg cat ggt atc ctg cgt cgc cgt cag ctg tac tgc cgt act ggt ttc			192
Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe			
	50	55	60
cac ctg cag atc ctg ccg gat ggt tct gtt cag ggt acc cgt cag gac			240
His Leu Gln Ile Leu Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp			
	65	70	80
cac tct ctg ttc ggt atc ctg gaa ttc atc tct gtt gct gtt ggt ctg			288
His Ser Leu Phe Gly Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu			
	85	90	95
gtt tct atc cgt ggt gtt gac tct ggc ctg tac ctg ggt atg aac gac			336
Val Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp			
	100	105	110
aaa ggc gaa ctg tac ggt tct gaa aaa ctg acc tct gaa tgc atc ttc			384
Lys Gly Glu Leu Tyr Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe			
	115	120	125
cgt gaa cag ttt gaa gag aac tgg tac aac acc tac tct tcc aac atc			432
Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile			
	130	135	140

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tac aaa cat ggt gac acc ggc cgt cgc tac ttc gtt gct ctg aac aaa 480
 Tyr Lys His Gly Asp Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys
 145 150 155 160

gac ggt acc ccg cgt gat ggt gct cgt tct aaa cgt cac cag aaa ttc 528
 Asp Gly Thr Pro Arg Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe
 165 170 175

acc cac ttc ctg ccg cgc cca gtt gac ccg gag cgt gtt cca gaa ctg 576
 Thr His Phe Leu Pro Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu
 180 185 190

tat aaa aac ctg ctg atg tac acc taa 603
 Tyr Lys Asn Leu Leu Met Tyr Thr
 195 200

<210> 17

<211> 200

<212> PRT

<213> Homo sapiens

<400> 17

Gly Gly Leu Glu Gly Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu
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Pro Pro Ala Gly Glu Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala
 20 25 30

Ala Glu Arg Ser Ala Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His
 35 40 45

Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe
 50 55 60

His Leu Gln Ile Leu Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp
 65 70 75 80

His Ser Leu Phe Gly Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu
 85 90 95

Val Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp
 100 105 110

Lys Gly Glu Leu Tyr Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe
 115 120 125

Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile
 130 135 140

Tyr Lys His Gly Asp Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys
 145 150 155 160

Asp Gly Thr Pro Arg Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe
 165 170 175

Thr His Phe Leu Pro Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu
 180 185 190

Tyr Lys Asn Leu Leu Met Tyr Thr
 195 200

<210> 18
 <211> 594
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(591)

<400> 18
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 Glu Gly Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala
 1 5 10 15

ggt gaa cgt ccg cca ctg ctg ggt gaa cgt cgc tcc gca gct gaa cgc 96
 Gly Glu Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg
 20 25 30

tcc gct cgt ggt ggc ccg ggt gct gct cag ctg gct cac ctg cat ggt 144
 Ser Ala Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly
 35 40 45

atc ctg cgt cgc cgt cag ctg tac tgc cgt act ggt ttc cac ctg cag 192
 Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln
 50 55 60

atc ctg ccg gat ggt tct gtt cag ggt acc cgt cag gac cac tct ctg 240
 Ile Leu Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu
 65 70 75 80

ttc ggt atc ctg gaa ttc atc tct gtt gct gtt ggt ctg gtt tct atc 288
 Phe Gly Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile
 85 90 95

cgt ggt gtt gac tct ggc ctg tac ctg ggt atg aac gac aaa ggc gaa 336
 Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu
 100 105 110

ctg tac ggt tct gaa aaa ctg acc tct gaa tgc atc ttc cgt gaa cag 384
 Leu Tyr Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln
 115 120 125

ttt gaa gag aac tgg tac aac acc tac tct tcc aac atc tac aaa cat 432
 Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His
 130 135 140

ggt gac acc ggc cgt cgc tac ttc gtt gct ctg aac aaa gac ggt acc 480
 Gly Asp Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr
 145 150 155 160

ccg cgt gat ggt gct cgt tct aaa cgt cac cag aaa ttc acc cac ttc 528
 Pro Arg Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe
 165 170 175

ctg ccg cgc cca gtt gac ccg gag cgt gtt cca gaa ctg tat aaa aac 576
 Leu Pro Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asn
 180 185 190

ctg ctg atg tac acc taa 594

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Leu Leu Met Tyr Thr
195

<210> 19

<211> 197

<212> PRT

<213> Homo sapiens

<400> 19

Glu Gly Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala
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Gly Glu Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg
20 25 30

Ser Ala Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly
35 40 45

Ile Leu Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln
50 55 60

Ile Leu Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu
65 70 75 80

Phe Gly Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile
85 90 95

Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu
100 105 110

Leu Tyr Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln
115 120 125

Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His
130 135 140

Gly Asp Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr
145 150 155 160

Pro Arg Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe
165 170 175

Leu Pro Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asn
180 185 190

Leu Leu Met Tyr Thr
195

<210> 20

<211> 567

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(564)

<400> 20

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His Phe Leu Leu Pro Pro Ala Gly Glu Arg Pro Pro Leu Leu Gly Glu

1	5	10	15	
cgt cgc tcc gca gct gaa cgc tcc gct cgt ggt ggc ccg ggt gct gct	96			
Arg Arg Ser Ala Ala Glu Arg Ser Ala Arg Gly Gly Pro Gly Ala Ala				
20 25 30				
cag ctg gct cac ctg cat ggt atc ctg cgt cgc cgt cag ctg tac tgc	144			
Gln Leu Ala His Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys				
35 40 45				
cgt act ggt ttc cac ctg cag atc ctg ccg gat ggt tct gtt cag ggt	192			
Arg Thr Gly Phe His Leu Gln Ile Leu Pro Asp Gly Ser Val Gln Gly				
50 55 60				
acc cgt cag gac cac tct ctg ttc ggt atc ctg gaa ttc atc tct gtt	240			
Thr Arg Gln Asp His Ser Leu Phe Gly Ile Leu Glu Phe Ile Ser Val				
65 70 75 80				
gct gtt ggt ctg gtt tct atc cgt ggt gtt gac tct ggc ctg tac ctg	288			
Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu				
85 90 95				
ggt atg aac gac aaa ggc gaa ctg tac ggt tct gaa aaa ctg acc tct	336			
Gly Met Asn Asp Lys Gly Glu Leu Tyr Gly Ser Glu Lys Leu Thr Ser				
100 105 110				
gaa tgc atc ttc cgt gaa cag ttt gaa gag aac tgg tac aac acc tac	384			
Glu Cys Ile Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr				
115 120 125				
tct tcc aac atc tac aaa cat ggt gac acc ggc cgt cgc tac ttc gtt	432			
Ser Ser Asn Ile Tyr Lys His Gly Asp Thr Gly Arg Arg Tyr Phe Val				
130 135 140				
gct ctg aac aaa gac ggt acc ccg cgt gat ggt gct cgt tct aaa cgt	480			
Ala Leu Asn Lys Asp Gly Thr Pro Arg Asp Gly Ala Arg Ser Lys Arg				
145 150 155 160				
cac cag aaa ttc acc cac ttc ctg ccg cgc cca gtt gac ccg gag cgt	528			
His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp Pro Glu Arg				
165 170 175				
ggt cca gaa ctg tat aaa aac ctg ctg atg tac acc taa	567			
Val Pro Glu Leu Tyr Lys Asn Leu Leu Met Tyr Thr				
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<212> PRT				
<213> Homo sapiens				
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20 25 30				
Gln Leu Ala His Leu His Gly Ile Leu Arg Arg Arg Gln Leu Tyr Cys				
35 40 45				

Arg Thr Gly Phe His Leu Gln Ile Leu Pro Asp Gly Ser Val Gln Gly
 50 55 60
 Thr Arg Gln Asp His Ser Leu Phe Gly Ile Leu Glu Phe Ile Ser Val
 65 70 75 80
 Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser Gly Leu Tyr Leu
 85 90 95
 Gly Met Asn Asp Lys Gly Glu Leu Tyr Gly Ser Glu Lys Leu Thr Ser
 100 105 110
 Glu Cys Ile Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr Asn Thr Tyr
 115 120 125
 Ser Ser Asn Ile Tyr Lys His Gly Asp Thr Gly Arg Arg Tyr Phe Val
 130 135 140
 Ala Leu Asn Lys Asp Gly Thr Pro Arg Asp Gly Ala Arg Ser Lys Arg
 145 150 155 160
 His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp Pro Glu Arg
 165 170 175
 Val Pro Glu Leu Tyr Lys Asn Leu Leu Met Tyr Thr
 180 185

<210> 22

<211> 447

<212> DNA

<213> Homo sapiens

<400> 22

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cgcaggtatt ttgtggcact taacaaagac ggaactccaa gagatggcgc caggtccaag 360
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ttgtacaagg acctactgat gtacact 447
  
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<210> 23

<211> 149

<212> PRT

<213> Homo sapiens

<400> 23

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 1 5 10 15
 Ile Leu Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu
 20 25 30
 Phe Gly Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile
 35 40 45
 Arg Gly Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu
 50 55 60

Leu Tyr Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln
65 70 75 80

Phe Glu Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His
85 90 95

Gly Asp Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr
100 105 110

Pro Arg Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe
115 120 125

Leu Pro Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asn
130 135 140

Leu Leu Met Tyr Thr
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<210> 24

<211> 537

<212> DNA

<213> Homo sapiens

<400> 24

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agaccagtgg atccagaaag agttccagaa ttgtacaaga acctactgat gtacact 537
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